Experimental Neurology

VOLUME 47, 1975

EDITED BY

LLOYD GUTH, *National Institutes of Health*

AND

CARMINE D. CLEMENTE, *University of California, Los Angeles*

EDITOR EMERITUS

WILLIAM F. WINDLE, *Denison University*

ASSOCIATE EDITORS

W. ROSS ADEY
R. WAYNE ALBERS
DAVID BODIAN
ROBERT W. DOTY
BERNICE GRAFSTEIN
EDWARD KOENIG
RONALD MELZACK
JAMES B. RANCK, JR.
JEROME SUTIN
ARNOLD L. TOWE
NORMAN M. WEINBERGER
WILLIAM D. WILLIS, JR.

ACADEMIC PRESS
New York and London
A Subsidiary of Harcourt Brace Jovanovich, Publishers

Copyright © 1975 by Academic Press, Inc.
ALL RIGHTS RESERVED

No part of this publication may be reproduced or transmitted in any form, or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the copyright owner.

CONTENTS OF VOLUME 47

NUMBER 1, APRIL 1975

TETSUJI HIRONAKA AND YUHEI MIYATA. Transplantation of Skeletal Muscle in Normal and Dystrophic Mice 1
E. GREGORY KEATING. Effects of Prestriate and Striate Lesions on the Monkey's Ability to Locate and Discriminate Visual Forms 16
P. L. MCGEER, T. HATTORI, AND E. G. MCGEER. Chemical and Autoradiographic Analysis of γ-Aminobutyric Acid Transport in Purkinje Cells of the Cerebellum 26
ARTHUR T. STOREY AND PAUL JOHNSON. Laryngeal Water Receptors Initiating Apnea in the Lamb 42
WARREN C. STERN, PETER J. MORGANE, MARAVENE MILLER, AND OSCAR RESNICK. Protein Malnutrition in Rats: Response of Brain Amines and Behavior to Foot Shock Stress 56
RICHARD E. STRAIN, JR., AND WILLIAM H. OLSON. Selective Damage of Large Diameter Peripheral Nerve Fibers by Compression: An Application of Laplace's Law 68
HIDEO UENO, YORIAKI YAMASHITA, AND WILLIAM F. CAVENESS. Regional Cerebral Blood Flow Pattern in Focal Epileptiform Seizures in the Monkey 81
TAKAFUMI NAGATOMO AND JAMES B. PETER. $(Na^+ + K^+)$-ATPase Activity in Rats with 20,25-Diazacholesterol-Induced Myotonia 97
L. DOLAN, L. CHEW, G. MORGAN, AND A. D. KIDMAN. Enzyme Studies of Skeletal Muscle in Mice with Different Types of Neural Impairment and Muscular Dystropy 105
HOWARD L. FIELDS, GAIL M. WAGNER, AND STUART D. ANDERSON. Some Properties of Spinal Neurons Projecting to the Medial Brain-Stem Reticular Formation 118
JANA DANKOVA, RENE BOUCHER, AND LOUIS J. POIRIER. Role of the Strio-Pallidal System and Motor Cortex in Induced Circus Movements in Rats and Cats .. 135
M. CURRAN AND D. J. PARRY. Neuromuscular Function in Fast and Slow Muscles of Genetically Dystrophic Mice 150
G. W. ARBUTHNOTT AND U. UNGERSTEDT. Turning Behavior Induced by Electrical Stimulation of the Nigro-Neostriatal System of the Rat 162
ALVIN M. BURT. Choline Acetyltransferase and Acetylcholinesterase in the Developing Rat Spinal Cord 173
AMIRAM DANIEL AND LLOYD GUTH. Histochemical Demonstration of $(Na^+ + K^+)$-Activated ATPase Activity of Synaptosomes and Synaptosomal Membranes 181

RESEARCH NOTES

F. V. DEFEUDIS. "Binding" of Gamma-aminobutyric Acid and Glycine to Synaptosome-Enriched Fractions of Rat Cerebral Cortex and Spinal Cord 189
J. A. PEARSON AND T. L. RICHARDSON. The Influence of Stimulus Intensity on Sensitization of the Flexor Reflex 194

Copyright © 1975 by Academic Press, Inc.
All rights of reproduction in any form reserved.

NUMBER 2, MAY 1975

EDITORIAL NOTE

ROBERT W. DOTY. Use of Curariform Agents i

FRED COHEN. Responses of Single Thoracic Respiratory Neurons to Electrical Stimulation of Suprasegmental Respiratory Areas 199

TED G. H. YUEN, WILLIAM F. AGNEW, AND E. J. A. CARREGAL. Lysosomal Handling of Tellurium by the Choroid Plexus Following Chronic Administration: An Ultrastructural Study 213

R. WAYNE FIELDS, RICHARD B. TACKE, AND BHIM SEN SAVARA. Pulpal Anodal Blockage of Trigeminal Field Potentials Elicited by Tooth Stimulation in the Cat 229

M. B. HANCOCK, R. D. FOREMAN, AND W. D. WILLIS. Convergence of Visceral and Cutaneous Input onto Spinothalamic Tract Cells in the Thoracic Spinal, Cord of the Cat 240

ALBERT N. MARTINS, ARCHIMEDES RAMIREZ, AND THOMAS F. DOYLE. Comparison of Radio-Iodinated Serum Albumin and Blue Dextran as Indicators to Measure Rate of Formation of Cerebrospinal Fluid 249

H. J. KLEINSCHMIDT AND H. COLLEWIJN. A Search for Habituation of Vestibulo-ocular Reactions to Rotatory and Linear Sinusoidal Accelerations in the Rabbit 257

LAWRENCE E. MAYS AND PHILLIP J. BEST. Hippocampal Unit Activity to Tonal Stimuli During Arousal from Sleep and in Awake Rats 268

L. JAMES WILLMORE, PETER M. FULLER, ALBERT B. BUTLER, AND NORMAN H. BASS. Neuronal Compartmentation of Ionic Cobalt in Rat Cerebral Cortex During Initiation of Epileptiform Activity 280

MICHAEL B. LASKOWSKI, WILLIAM H. OLSON, AND WOLF-D. DETTBARN. Ultrastructural Changes at the Motor End-Plate Produced by an Irreversible Cholinesterase Inhibitor 290

Y. KOMIYA AND L. AUSTIN. Axoplasmic Flow of Protein in the Sciatic Nerve of Mice with Experimentally Induced Myopathy 307

MADGE E. SCHEIBEL, UWAMIE TOMIYASU, AND ARNOLD B. SCHEIBEL. Do Raphne Nuclei of the Reticular Formation Have a Neurosecretory or Vascular Sensor Function? 316

ERMANNO MANNI, GIOVANNI PALMIERI, ROLANDO MARINI, AND VITO ENRICO PETTOROSSI. Trigeminal Influences on Extensor Muscles of the Neck 330

ANTHONY J. CASTRO. Tongue Usage as a Measure of Cerebral Cortical Localization in the Rat 343

RESEARCH NOTES

J. J. MCARDLE AND E. X. ALBUQUERQUE. Effects of Ouabain on Denervated and Dystrophic Muscles of the Mouse 353

KENNETH V. ANDERSON AND GARY S. PEARL. C-Fiber Activity in Feline Tooth Pulp Afferents 357

G. RICHARD GATES AND CHIA-SHONG CHEN. Development of Audiogenic Seizure Susceptibility in Aged BALB/c Mice 360

LINDA M. HARRISON. Fiber Diameter Spectrum of the Motor Fibers of Rat Sural Nerve 364

DAVID T. H. FUNG, JOSEPH C. HWANG, SAMUEL H. H. CHAN, AND Y. C. CHAN. Electro-Acupuncture Suppression of Jaw Depression Reflex Elicited by Dentalgia in Rabbits 367

Number 3, June 1975

In Memoriam: Petr Kuzmich Anokhin (1898–1974) ..... i–vi
Masakuni Mukoyama, Mitsuo Iida, and Itsuro Sobue. Hyperbaric Oxygen Therapy for Peripheral Nerve Damage Induced in Rabbits with Clioquinol.. 371
Jack McLaughlin and H. Bruce Bosmann. Glycolipid and Glycoprotein Sialyltransferase Enzyme Activity in Denervated Skeletal Muscle..... 381
Madge E. Scheibel, Robert D. Lindsay, Uwamie Tomiyasu, and Arnold B. Scheibel. Progressive Dendritic Changes in Aging Human Cortex..... 392
D. F. Lindsley, S. K. Ranf, F. C. Fernandez, and W. Wyrwicka. Effects of Anti-Parkinsonian Drugs on the Motor Activity and EEG of Cats with Subthalamic Lesions..... 404
E. Eidelberg, C. J. Kreinick, and C. Langescheid. On the Possible Functional Role of Afferent Pathways in Skin Sensation..... 419
Dan Goldowitz, W. Frost White, Oswald Steward, Gary Lynch, and Carl Cotman. Anatomical Evidence for a Projection from the Entorhinal Cortex to the Contralateral Dentate Gyrus of the Rat..... 433
Lesnick E. Westrum. Axonal Patterns in Olfactory Cortex after Olfactory Bulb Removal in Newborn Rats..... 442
Lydia Donaldson, Peter J. Hand, and Adrian R. Morrison. Cortical–Thalamic Relationships in the Rat..... 448
Luis Puelles-Lopez, F. Malagon-Cobos, and J. M. Génis-Galvez. The Migration of Oculomotor Neuroblasts across the Midline in the Chick Embryo.... 459
Geoffrey Patrissi and Donald G. Stein. Temporal Factors in Recovery of Function after Brain Damage..... 470
M. A. Bisby. Inhibition of Axonal Transport in Nerves Chronically Treated with Local Anesthetics..... 481
Andrew S. Wilson and Jerry P. Krcek. Restoration of Function in the Paralyzed Diaphragm..... 490
Nachum Dafny. Effect of Substantia Nigra Stimulation on Spontaneous Unit Activity in the Caudate Nucleus..... 503
Richard J. Schain and Kathy Watanabe. Effect of Chronic Phenobarbital Administration Upon Brain Growth of the Infant Rat..... 509
Poul Dyhre-Poulsen. Increased Vibration Threshold Before Movements in Human Subjects..... 516
Jiri Simon and Olga Simon. Effect of Passive Transfer of Anti-brain Antibodies to a Normal Recipient..... 523
A. N. Nicholson and Catherine M. Wright. Effect of Mild Hypoxia on Delayed Differentiation in the Monkey (*Macaca mulatta*)..... 535
F. J. Lebeda and E. X. Albuquerque. Membrane Cable Properties of Normal and Dystrophic Chicken Muscle Fibers..... 544
A. J. Lapa, E. X. Albuquerque, J. M. Sarvey, J. Daly, and B. Witkop. Effects of Histrionicotoxin on the Chemosensitive and Electrical Properties of Skeletal Muscle..... 558
R. J. MacGregor, S. W. Miller, and P. M. Groves. Slow Rhythms and Correlations in Spike Trains from Midbrain Neurons..... 581
Erratum..... 599
Author Index..... 600
Subject Index for Volume 47 will appear in the December 1975 issue as part of a cumulative index for the year 1975.